

US-PAT-NO: 5633919

DOCUMENT-IDENTIFIER: US 5633919 A

TITLE: Real-time billing system for a call processing system

----- KWIC -----

Detailed Description Text - DETX (406):

One bit of callhandle BA305 is designated as a billing server ID EG124. Billing server ID EG124 indicates which BSRVR BA108 (for example, primary BSRVR BA108A or redundant BSRVR BA108B) assigned this particular callhandle BA305 to the call.

Detailed Description Text - DETX (439):

Update mirror procedure EB108 is used to help keep both primary billing server EB108 and secondary billing server EB108 redundancy information and statuses identical. Upon initialization, update mirror procedure EB108 registers with CLIF procedure EB104 to receive a PUT message ED128, a mirror message, and a UP message.

Detailed Description Text - DETX (442):

During normal operations, the mirror message is sent from primary BSRVR BA108A to redundant BSRVR BA108B. Mirror message causes redundant BSRVR BA108B to perform the same updates to billing server files EA104 and billing server memory EA106 as is performed by primary BSRVR BA108A. This ensures that redundant BSRVR BA108B is completely redundant with primary BSRVR BA108A during normal operations

US-PAT-NO: 5983353

DOCUMENT-IDENTIFIER: US 5983353 A

TITLE: System and method for activating a deactivated device by
standardized messaging in a network

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Detailed Description Text - DETX (38):

In the Check for Authorized User step 630, the receiving device determines whether other users besides the system administrator are allowed access to the receiving device and, if so, whether the address of the current message is an authorized address. The security mechanism that is implemented by the decision process 600 is an extension of the operating system security. Operating systems including Unix, Windows NT, Windows 95, and others support security features, typically through application programming interfaces (APIs) that extend beyond the features of the operating system. For example, the system may be configured to allow only those messages that are transmitted by the system administrator so that the system administrator address is the only address in the source address checklist. Alternatively, the source address checklist may also include the address of the user's home system, for example. In other cases, multiple user addresses may be authorized. In the Check for Authorized User step 630, the decision process involves comparing the source address with a list of authorized addresses. If the source address is not included on the authorized checklist, then the decision process 600 is terminated with a Remain Deactivated step 608 that returns the receiving device to a listening state for monitoring subsequent messages. Otherwise, the decision process 600 enters a Wakeup state 634

DOCUMENT-IDENTIFIER: US 20020103899 A1

TITLE: Call-processing system and method

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Detail Description Paragraph - DETX (308):

[0580] One bit of callhandle BA305 is designated as a billing server ID EG124. Billing server ID EG124 indicates which BSRVR BA108 (for example, primary BSRVR BA108A or redundant BSRVR BA108B) assigned this particular callhandle BA305 to the call.

Detail Description Paragraph - DETX (341):

[0613] Update mirror procedure EB108 is used to help keep both primary billing server EB108 and secondary billing server EB108 redundancy information and statuses identical. Upon initialization, update mirror procedure EB108 registers with CLIF procedure EB104 to receive a PUT message ED128, a mirror message, and a UP message.

Detail Description Paragraph - DETX (344):

[0616] During normal operations, the mirror message is sent from primary BSRVR BA108A to redundant BSRVR BA108B. Mirror message causes redundant BSRVR BA108B to perform the same updates to billing server files EA104 and billing server memory EA106 as is performed by primary BSRVR BA108A. This ensures that redundant BSRVR BA108B is completely redundant with primary BSRVR BA108A during normal operations



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Hogan et al.(10) Pub. No.: **US 2002/0103899 A1**(43) Pub. Date: **Aug. 1, 2002**(54) **CALL-PROCESSING SYSTEM AND METHOD**

(52) U.S. Cl. 709/224

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Related U.S. Application Data

(63) Continuation of application No. 09/198,058, filed on Nov. 19, 1998, now patented.

Publication Classification(51) Int. Cl.⁷ G06F 15/173(57) **ABSTRACT**

A system and method for processing telephone calls and providing enhanced services is presented. The call processing system includes a network control processor for controlling the processing and routing of the calls and for providing enhanced features, and a matrix switch for routing calls from an originating location to a terminating location. Operator consoles can be included to provide operator assistance to the caller. The network control processor comprises a central message processor that receives call data, determines the type of call, determines the processing required, and determines whether operator assistance is required. A call route distributor allocates an operator console to the call if required. A billing server is used to track billing information for the call while it is in progress. A database server is provided for database look-ups and storage. The call processing system also includes a validation system, a billing system, a distribution system, and a fraud detection and prevention system. The validation system is used to validate call information to determine whether the call can be placed. The billing system determines rates for calls and calculates the cost of completed calls. The distribution system distributes changes that are made to a master database to the appropriate slave database. The fraud detection and prevention system monitors originating and in-process calls to detect and possibly prevent possible fraudulent uses of phone services and systems. A client interface is provided to facilitate communications among applications and DEF records are used to define specific call processing actions.

